

**REMARKS**

Claims 5-7, 9, 10, 17, 19 and 22 are currently pending. Claims 5, 7, 9, 17, 19 and 22 are amended herein. In view of the amendments set forth above and the comments set forth below, the Applicants respectfully request reconsideration of the outstanding rejections and allowance of the pending claims.

**I. Summary of the Objection and Rejections**

The specification is objected to at page 7, line 1, because of an informality.

Claims 5-7, 9, 10, 17, 19 and 22 stand rejected under 35 U.S.C. §101.

Claims 5-7, 9, 10, 17, 19 and 22 stand rejected under 35 U.S.C. §112, 2<sup>nd</sup> paragraph.

Claim 5-7, 17, 19 and 22 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Schatz et al. (U.S. Patent No 5,845,270).

**II. Objection to the Specification**

The Examiner has objected to an informality in the specification. In particular, the Examiner has objected to the phrase “blocks may considered” at page 7, line 1 of the specification of the present application. In response to this objection, the Applicants have amended this specification to change this phrase to “blocks may be considered.”

**III. In Person Interview with Examiner**

The Applicant’s wish to thank the Examiner for the in-person interview to discuss the rejections under 35 U.S.C. §101 and under 35 U.S.C. §102. The Applicants discussed the practical utility of the claimed methods and argued that the claimed methods were directed to statutory subject matter. In addition, the Applicant’s argued several distinctions over the Schatz et al. reference (U.S. Patent No. 5,845,270).

**IV. Claim Rejections under 35 U.S.C. §101**

Claims 5-7, 9, 10, 17, 19 and 22 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. In particular, the Examiner alleges that the, “claims are directed to data manipulation without having a useful, concrete, and tangible result.” (See, section 4, page 3 of the Office Action). The Applicant’s respectfully traverse this rejection and submit that the methods recited within claims 5-7, 9, 10, 17, 19 and 22 have a useful, concrete and tangible result.

As MPEP, Section 2106 notes, “To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application of technological art is either disclosed in the specification or would have been known to a skilled artisan...or (B) be limited to a practical application within the technological arts.” This MPEP section further notes, “A process is statutory if it requires physical acts to be performed outside the computer independent of and following the steps to be performed by a programmed computer, where those acts involve the manipulation of tangible physical objects and results in the object having a different physical attribute or structure.” The MPEP then gives an example of such an independent physical act or post-computer process activity as displaying a calculation as a gray-code scale.

As was explained with the interview with the Examiner, the pending claims have a great deal of practical utility. The claims are not directed solely to mere abstractions, mathematical algorithm, or laws of nature. The features recited within the pending claims are useful to parties that practice the claimed methods.

To further highlight that these claims are directed to statutory subject matter, the Applicants have amended claims 5, 9, 17, 19 and 22 to add the step of displaying. It is believed these amendments further clarify that the claims are directed to patentable subject matter. Accordingly, the Applicant’s respectfully urge the reconsideration of the outstanding rejections under 35 U.S.C. §101.

**V. Claim Rejections under 35 U.S.C. §112, 2<sup>nd</sup> Paragraph**

Claims 5-7, 10, 17, 19 and 22 stand rejected under 35 U.S.C. §112, 2<sup>nd</sup> paragraph, as being indefinite for failing to particularly point out and distinctly claims the subject matter which applicant regards as the invention. The Applicants have amended the claims to address these rejections. In view of the amendments, the Applicants respectfully request reconsideration of the outstanding rejection.

## VI. Claim Rejections under 35 U.S.C. §102

Claims 5-7, 17, 19 and 22 stand rejected under 35 U.S.C. §102(b) as being anticipated by Schatz et al. (U.S. Patent No. 5,845,270), hereinafter “Schatz”. The Applicants respectfully traverse this rejection.

### A. Claim 5

Amended claim 5 reads as follows:

5. In an electronic device interfaced with a display surface, a method, comprising the steps of:

    providing two electronic diagrams, said electronic diagrams having blocks representing components of a system;

    determining corresponding features of said electronic diagrams that are present in both of said electronic diagrams;

    determining differences between said electronic diagrams;

    categorizing said differences between said two electronic diagrams as functional differences and graphical differences, said functional differences controlling the performance of a system represented by said electronic diagram, said graphical differences affecting the appearance of said electronic diagram displayed to a user;

    copying all of said functional differences from said selected one of said two electronic diagrams;

    copying less than all of said graphical differences from said selected one of said two electronic diagrams;

    inserting the copied functional differences and graphical differences into said other electronic diagram; and

displaying at least a portion of the other electronic diagram on the display surface.

i. **“Determining Differences Between Said Electronic Diagrams”**

Claim 5 is not anticipated by Schatz because Schatz fails to disclose the feature of “determining differences between said electronic diagrams,” as required by claim 5. In order to understand why Schatz does not disclose this limitation, it is helpful to review the disclosure of Schatz in some detail.

Schatz summarizes the invention disclosed therein as follows:

The present invention provides a method by which system objects and resource objects, and the relationships between the system objects and resource objects, are organized and summarized. The system objects, resource objects and relationships between the same may be utilized to create a network diagram for graphical analysis of the relationships between the system objects and resource objects. A user selects system objects from a plurality of classes, and selects attributes associated with the plurality of classes to organize the system objects. The system objects are then organized into groups according to the attributes. Resource objects potentially produced or consumed by the system objects are selected and the groups into which and out of which the resource objects potentially flow are identified. The resource objects and the group are organized in such a manner so as to identify between which groups and in what direction the resources flow. The system objects and resource objects are depicted in a network diagram as may be useful, e.g., in input/output modeling or analysis. It is another object of the present invention to provide a method for interconnecting two or more network diagrams to form a single merged network diagram. (Column 2, lines 25-46).

Schatz discloses that the network diagrams disclosed therein may be merged. Schatz notes that, “each of the network diagrams to be merged has its own underlying taxonomy tree of systems.” (Column 11, lines 22-23). Schatz also notes, “the trees and systems may be identical, overlapping, or mutually exclusive with respect to each other.” Schatz then discloses how the merger occurs for each of these cases. Specifically, Schatz states

“If the trees of systems are mutually exclusive, then the trees of systems are combined with a system u representing a universal tree of aggregate systems

not found in either tree to form a new tree (unless the combination of both trees of systems includes all systems in the universal tree of systems, making this step unnecessary). Additionally, a new hypercube is formed combining the systems of both trees and system u and the resources of both original hypercubes.

If the trees of systems are overlapping, they necessarily share at least one system in common, in which case they are considered to be partially overlapping, and potentially share all systems in common, in which case they are considered to be completely overlapping. If the trees of systems are completely overlapping, then, just as described above in connection with mutually exclusive trees of systems, the trees of systems are combined with a system u representing a universal tree of aggregate systems not found in either tree to form a new merged tree, and a new hypercube is formed combining the systems of both trees and system u and the resources of both original hypercubes. However, duplicate systems in common between the trees are removed from the merged tree, as are the related cells in the new hypercube related thereto.

If trees of systems are partially overlapping, then new sub-systems are defined in each of the original taxonomy trees using new attributes to distinguish the sub-systems for each of the overlapping systems, thereby extending the original user defined taxonomy trees until all the systems are either mutually exclusive or exactly overlapping. Then, as is the case with completely overlapping trees of systems, the trees of systems are combined with a system u representing a universal tree of aggregate systems not found in either tree to form a new merged tree, a new hypercube is formed combining the systems of both trees and system u and the resources of both original hypercubes, and duplicate systems in common between the trees are removed from the merged tree, as are the related cells in the new hypercube related thereto. (Column 11, lines 30-67).

As the above quoted language from Schatz evidences, Schatz does not disclose "determining differences between said electronic diagrams," as required by claim 5. In the case where the trees are mutually exclusive, the trees are combined with a system u that represents a universal tree of aggregate systems to form a merged tree. There is no determination of differences. In the case where the trees are completely overlapping, the trees are combined with a system u, representing a universal tree of aggregate systems to form a new merge tree. The duplicate systems in common between the trees are removed. In such a case, there is no determining of the differences between said electronic diagrams. Lastly, in the case where there are overlapping trees, a new merged tree is formed combining the systems of both trees and the system u duplicate systems are removed. Schatz does not determine differences between diagrams, rather it merges diagrams to form a new merged tree and eliminates duplicates.

ii. **“Categorizing Said Differences Between Said Two Electronic Diagrams as Functional Differences and Graphical Differences”**

Schatz fails to disclose the feature of “categorizing said differences between said two electronic diagrams as functional differences and graphical differences.” As mentioned above, Schatz does not determine differences between electronic diagrams. In addition, Schatz does not categorize differences as functional differences and graphical differences. In this regard, the Examiner notes at page 9 of the Office Action:

“Schatz is teaching to one of ordinary skill in the art that a combined diagram may have less graphical elements than each of the individual diagrams have when view[sic]. A number of graphical or cosmetic elements may be absent such as spacing or white space between lines, blocks, etc. of the diagram, size of each of the lines, blocks, etc. of the diagram, and/or location of the lines, blocks, etc. of the diagram. These examples are not exclusive of other cosmetic/graphical differences that could be present in the merge diagrams taught by Shatz.

The Applicants respectfully submit that there are flaws in this position. First, the claimed categorization features deals with the differences between the two initial electronic diagrams that are being merged and not differences between the resulting merged diagram and the diagrams being merged. Second, even if there are resulting differences in Schatz there is no “categorizing” of the differences as being either functional differences or graphical differences, as required by claim 5. Accordingly, the Applicants respectfully urge reconsideration of the rejection of claim 5.

iii. **“Inserting The Copied Functional Differences and Graphical Differences Into Said Other Electronic Diagram”**

Schatz fails to disclose the feature of “inserting the copied functional differences and graphical differences into said other electronic diagram.” In particular, Schatz does not disclose that the differences are copied into said other electronic diagrams. Schatz creates a merged diagram (i.e., a third diagram) that contains the merged systems. In contrast, claim 5 recites that the copied differences are copied into “said other electronic diagram,” which is one of the two electronic diagrams that are initially provided.

In view of the distinctions argued above relative to claim 5, the Applicants respectfully urge reconsideration of rejection of claim 5 and urge the Examiner to allow claim 5.

**B. Claims 6 and 7**

Claims 6 and 7 depend of independent claim 5. As such, claim 6 and 7 incorporate all of the limitations of claim 5. Accordingly, claims 6 and 7 are novel for the reasons set forth above regarding the novelty of claim 5. The Applicants respectfully request reconsideration of the objection claims 6 and 7 and urge the Examiner to pass claims 6 and 7 to allowance.

**C. Claim 10**

Amended Claim 9 reads as follows:

9. In an electronic device interfaced with a display surface, a method, comprising the steps of:

    providing two electronic diagrams, said electronic diagrams having blocks representing components of a system;

    determining corresponding features of said electronic diagrams that are present in both of said electronic diagrams;

    determining differences between said electronic diagrams;

    programmatically merging differences copied from a selected one of said two electronic diagrams into the other of said electronic diagrams at a corresponding location in said other electronic diagram;

    determining a distance on said display surface from an endpoint of a line to an updated connection point for a block in said other electronic diagram, said updated connection point being the connection point of a said line and said block following a merge operation;

    comparing said distance to a pre-defined parameter, said pre-defined parameter being a distance value;

    extending said line to said updated connection point when said distance is less than said pre-defined parameter; and

displaying said line on the display surface.

Claim 10 depends off of claim 9 and thus, incorporates all the limitations of claim 9.

i. **“Determining Differences Between Said Electronic Diagrams”**

Schatz does not disclose the feature of “determining differences between said electronic diagram,” as required by claim 9 upon which claim 10 depends. Per the discussion above relative to claim 5, Schatz does not determine the differences between the electronic diagrams.

ii. **“Programmatically merging differences copied from a selected one of said two electronic diagrams into the other said electronic diagrams”**

Schatz fails to disclose the feature of “programmatically merging differences copied from a selected one of said two electronic diagrams into the other said electronic diagrams.” As was discussed above relative to the rejection of claim 5, Schatz does not merge differences into one of the two electronic diagrams that is provided; rather, Schatz creates a third diagram that represents the merger of the tow electronic diagrams. Moreover, there is no merger of electronic differences; rather Schatz discloses creating a third diagram that is the union of the two diagrams with any duplicate systems removed.

iii. **“Extending Said Line to Said Updated Connection Point When Said Distance is Less Than Predetermined Parameter”**

Schatz fails to disclose the step of “extending said line to said updated connection point when said distance is less than predetermined parameter.” Schatz is entirely silent as to this step. There is no discussion of such “extending” within Schatz.

For at least the reasons discussed above, the Applicants urge reconsideration of the outstanding rejection of claim 10 and urge the Examiner to pass the claim to allowance.

#### D. Claim 17

Amended claim 17 reads as follows:

17. In an electronic device, a method, comprising the steps of:

- providing two state diagrams of a system, said state diagrams having blocks joined with lines, each of said blocks representing states in a system, said lines representing transitions between said states, said transitions taking place upon the occurrence of a specified event;
- determining corresponding features of said state diagrams that are present in both of said state diagrams;
- determining differences between said state diagrams, wherein the determining of differences includes categorizing said corresponding features as functional features and graphical features, said functional features controlling the performance of the system represented by said state diagram, said graphical features affecting the appearance of said state diagram displayed to a user, and determining differences in said functional features and said graphical features of said state diagrams;
- enabling a user to select some of said differences;
- merging the differences selected by the user from a selected one of said state diagrams into the other of said state diagrams, said merging step including the step of copying said selected differences from the selected one of said state diagrams and inserting said selected differences in said other state diagram, wherein the step of copying includes copying all of said differences in functional features from said selected one of said state diagrams and copying less than all of said differences in graphical features from said selected one of said state diagrams;
- inserting the copied functional feature differences and graphical feature differences into of said other state diagram; and
- displaying at least a portion of the other state diagram on the display.

i. **“Determining Differences Between Said State Diagrams”**

Schatz fails to disclose the feature of “determining differences between said state diagrams,” as required by claim 17. Schatz fails to disclose determining differences between state diagrams; rather; Schatz merges diagrams and removes duplicate systems.

ii. **“Categorizing Said Corresponding Features as Functional Features and Graphical Features”**

Schatz fails to disclose the feature of “categorizing said corresponding features as functional features and graphical features,” as required by claim 17. Per the discussion above relative to claim 5, the argument relied upon by the Examiner as disclosing this feature is flawed. Schatz fails to disclose any “categorizing” of differences between state diagrams. Moreover, the Examiner has pointed to differences between the merged third diagram and the initial diagrams rather than differences between the two state diagrams.

iii. **“Merging the One or More Differences Selected by the User from a Selected One of the Said State Diagrams into the Other of the Said State Diagram”**

Schatz fails to disclose the step of “merging the one or more differences selected by the user from a selected one of the said state diagrams into the other of the said state diagram,” as recited in claim 17. Schatz fails to disclose the ability for the user to select differences that will be merged. Schatz does not merge differences and does not provide the ability for a user to select one or more of the differences.

iv. **“Inserting The Copied Functional Feature Differences and Graphical Feature Differences Into Said Other State Diagram.”**

Schatz fails to disclose the feature “inserting the copied functional feature differences and graphical feature differences into said other state diagram,” as required by claim 17. In fact, there is no insertion of differences from one diagram into another diagram at all in Schatz. Instead a third merged diagram is created.

For at least the reasons discussed above, the Applicants urge reconsideration of the outstanding rejection of claim 17 and urge the Examiner to pass the claim to allowance.

E. **Claim 19**

Amended claim 19 reads as follows:

19. In a network that includes an electronic device, said electronic device interfaced with

a display surface, a method, comprising the steps of:

retrieving over said network two electronic diagrams, said electronic diagrams having blocks joined with lines and including at least one semantic connection, said semantic connection associating components within the same system in said electronic diagram without a direct connection in said diagram between the components, each of said blocks including connection points where said lines join said blocks;

displaying said electronic diagrams to a user on said display surface;

determining corresponding features of said electronic diagrams that are present in both of said electronic diagrams;

determining differences between said electronic diagrams, said differences being recorded as a list of data elements, wherein said determining of differences includes categorizing said differences between said electronic diagrams as functional differences and graphical differences, said functional differences controlling the performance of the system represented by said electronic diagram, said graphical differences affecting the appearance of said block diagram displayed to a user;

enabling a user to select some of said differences;

merging the differences selected by the user from a selected one of said electronic diagrams into the other of said electronic diagrams, said merging step including the step of copying said selected differences from the selected one of said electronic diagrams and inserting said selected differences in the other of said electronic diagrams, wherein the step of copying includes copying all of said functional differences from selected one of said two electronic diagrams and copying less than all of said graphical differences from said other electronic diagram;

inserting the copied functional differences and graphical differences into said other electronic diagram; and

displaying at least a portion of the other electronic diagram on the display surface.

i. **“Determining Differences Between Said Electronic Diagrams”**

Schatz fails to disclose the feature of “determining differences between said electronic diagrams,” as required by claim 19. As has been discussed extensively above,

Schatz does not determine such differences.

ii. **“Categorizing Said Differences Between Said Electronic Diagrams as Functional Differences and Graphical Differences”**

Schatz fails to disclose the feature of “categorizing said differences between said electronic diagrams as functional differences and graphical differences,” as required by claim 19. In particular, Schatz does not disclose such categorizing. Furthermore, as mentioned above, the graphical differences pointed to by the Examiner related to the merged diagram that is a third diagram and not the differences between the two electronic diagrams that are compared to determine differences.

iii. **“Merging the One or More Differences Selected by the User From a Selected One Said Electronic Diagrams into the Other Said Electronic Diagrams”**

Schatz fails to disclose the feature of “merging the one or more differences selected by the user from a selected one said electronic diagrams into the other said electronic diagrams,” as required by claim 19. Schatz does not disclose merging differences that are selected by a user. In addition, Schatz does not disclose merging differences into “the other said electronic diagrams.”

For at least the above reasons, Applicants urge reconsideration of the outstanding rejection of claim 19 and urge the Examiner to pass the claim to allowance.

F. **Claim 22**

Amended claim 22 reads as follows:

22. In an electronic device interfaced with a display surface, a medium holding computer-executable instructions for a method, said method comprising the steps of:

providing two electronic diagrams, said electronic diagrams having blocks representing components of a system, said blocks connected by lines;

determining corresponding features of said electronic diagrams that are present in both of said electronic diagrams;

determining differences between said electronic diagrams, wherein the determining of differences includes categorizing said differences between said two electronic diagrams as functional differences and graphical differences, said functional differences controlling the performance of a system represented by said electronic diagram, said graphical differences affecting the appearance of said electronic diagram displayed to a user;

enabling a user to select some of said differences;

programmatically merging the differences selected by the user by copying said selected differences from a selected one of said two electronic diagrams into the other of said electronic diagrams at a corresponding location in said other electronic diagram, wherein the step of copying includes copying all of said functional differences from said selected one of said two electronic diagrams and copying less than all of said graphical differences from said selected one of said two electronic diagrams;

inserting the copied functional differences and graphical differences into said other electronic diagram; and

displaying at least a portion of the other electronic diagram on the display surface.

i. **“Determining Differences Between Said Electronic Diagrams”**

Schatz fails to disclose the feature of “determining differences between said electronic diagrams,” as required by claim 22. As has been discussed extensively above, Schatz does not determine such differences.

ii. **“Categorizing Said Differences Between Said Two Electronic Diagrams as Functional Differences and Graphical Differences”**

Schatz fails to disclose the feature of “categorizing said differences between said two electronic diagrams as functional differences and graphical differences,” as required by claim 22. In particular, Schatz does not disclose such categorizing. Furthermore, as

mentioned above, the graphical differences pointed to by the Examiner related to the merged diagram that is a third diagram and not the differences between the two electronic diagrams that are compared to determine differences.

iii. **“Programmatically Merging the Differences Selected by the User by Copying Said Difference From a Selected One Said Electronic Diagrams into the Other Said Electronic Diagrams”**

Schatz fails to disclose the feature of “programmatically merging the differences selected by the user by copying said difference from a selected one said electronic diagrams into the other said electronic diagrams,” as required by claim 22. Schatz does not disclose merging differences that are selected by a user. In addition, Schatz does not disclose merging differences into “the other said electronic diagrams.”

For at least the above reasons, Applicants urge reconsideration of the outstanding rejection of claim 22 and urge the Examiner to pass the claim to allowance.

**VI. Allowability of Claim 10**

The Applicants wish to thank the Examiner for the indication of allowability of claim 10 if rewritten or amended to overcome the rejections under 35 U.S.C. §101 and 35 U.S.C. §112, 2<sup>nd</sup> paragraph.

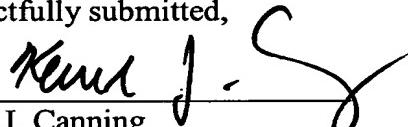
**VII. CONCLUSION**

In view of the above, each of the presently pending claims in this application is believed to be in condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue. If, however, the Examiner considers that further obstacles to allowance of these claims persist, we invite a telephone call to Applicant's representative.

To the extent necessary, a petition for an extension of time under 37 C.F.R. §1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 12-0080 under Order No. MWS-009RCE from which the undersigned is authorized to draw.

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Respectfully submitted,

By   
Kevin J. Canning  
Registration No.: 35,470  
LAHIVE & COCKFIELD, LLP  
One Post Office Square  
Boston, Massachusetts 02109  
(617) 227-7400  
(617) 742-4214 (Fax)  
Attorney/Agent For Applicant